HHS Public Access

Author manuscript

Health Psychol. Author manuscript; available in PMC 2016 April 01.

Published in final edited form as:

Health Psychol. 2016 April ; 35(4): 351–355. doi:10.1037/hea0000268.

The Association between Discrimination and the Health of Sikh Asian Indians

S.B. Nadimpalli, **C.M. Cleland**, **M.K. Hutchinson**, **N. Islam**, **L.L. Barnes**, and **N. Van Devanter**

Sarah B. Nadimpalli earned her PhD from New York University's College of Nursing in New York, NY and is currently a Post-Doctoral Research Fellow at Northwestern University's Department of Preventive Medicine. Drs Nancy Van Devanter and Charles M. Cleland are of New York University's College of Nursing, New York, New York. Dr. Nadia Islam is of the NYU School of Medicine, New York, NY, Dr. M. Katherine Hutchinson is of the Boston College William F. Connell School of Nursing, Boston MA. Dr. Lisa Barnes is of The Rush Alzheimers Disease Center, Chicago, IL

Abstract

Objective—To investigate the relationships between self-reported discrimination (SRD) and mental and physical health (self-reported physical health conditions and direct, physiologic measures (BMI, waist-to-hip ratio, and blood pressure) among Sikh Asian Indians (AI), a group that may be particularly discriminated against due to physical manifestations of their faith, including a tendency to wear turbans or ethnic clothing.

Methods—Sikh AIs (N = 196) were recruited from Sikh gurdwaras in Queens, New York. Data were collected on SRD, social support and self-reported health, along with multiple direct physiological measures for cardiovascular health.

Results—Participants who wore turbans/scarves reported higher levels of discrimination than those who did not wear turbans/scarves. As hypothesized, multiple regression analysis supported that discrimination is significantly associated with poorer self-reported mental ($B = -.53$, $p < .001$) and physical health ($B = -.16$, $p = .04$) while controlling for socioeconomic, acculturation, and social support factors. The study did not support an association between SRD and physiologic measures (elevated BMI, waist-to-hip ratio, and blood pressure).

Conclusion—Consistent with previous discrimination and health reports, this study demonstrated an inverse relationship between discrimination and health among Sikh AIs, an understudied yet high risk minority population. Community-based efforts are also needed to reduce the occurrence or buffer the effects of discrimination experienced by Sikh AIs.

Keywords

health disparities; discrimination; health outcomes; Sikh Asian Indian

Correspondence concerning this study should be addressed to Sarah Nadimpalli, 2335 West Shakespeare Avenue, Chicago IL, 60647. Telephone: 773-569-0559. sarahbnadimpalli@gmail.com.

This research was completed between September 2012 and November 2013.

Introduction

Discrimination has been found to be a significant social determinant of poor health for ethnic minority groups in the U.S. (Gee, Ro, Shariff-Marco, & Chae, 2009; Krieger & Sidney, 1996; Paradies, 2006). Several literature reviews have provided evidence for relationships between discrimination, stress response, and poorer health among ethnic minority groups, (Brondolo et al., 2011; Brondolo, Rieppi, Kelly, & Gerinet, 2003; Gee et al., 2009; Paradies, 2006). A recent literature review by Gee et al., (2009) demonstrated there were correlations between self-reported discrimination (SRD) and several mental and physical health outcomes among Asian Americans, however, studies in this review largely did not disaggregate analyses according to Asian American subgroup. Subgroup analyses of discrimination and health outcomes are necessary, especially among South Asian Americans (SAA), given their diverse experiences and unique exposures related to cultural and religious factors in addition to race (Gee, Ro, Gavin, & Takeucki, 2008).

South Asian Americans are one of the most rapidly growing ethnic minority groups within the U.S., representing 20% of the Asian American population (U.S. Census Bureau, 2010). Currently over 3.4 million SAAs live in the U.S. and include, but are not limited to, the following groups: Asian Indians (AIs), Pakistanis, and Bangladeshis (U.S. Census Bureau, 2010). Although all ethnic minorities are susceptible to discrimination as based on phenotypical appearance, Sikh AIs are particularly vulnerable to discrimination as they often wear turbans (males) or scarves (females) as symbols of devotion to the Sikh faith. Turban/scarf wearing among Sikhs has unfortunately been misinterpreted as threatening, dangerous, or a sign of “otherness” especially since the terrorist attacks of September 11, 2001. In the case of Sikh AI men, beard wearing may also be misinterpreted as threatening. Since 9/11, thousands of reports document that Sikhs AIs have endured hate crimes, workplace discrimination, school bullying, and religious and racial profiling especially at airport facilities (The Sikh Coalition, 2014). Sikh AIs, particularly those living in ethnic enclaves, may also be discriminated against if traditional clothing is worn, which is typically an additional sign of minority status. Given the salience of discrimination for minority populations in general, and the well-established links with poor health, studies that examine how such discrimination may be influencing the health of Asian American subgroups who are especially vulnerable, like Sikh AIs, are sorely needed.

The purpose of the current study was to address the gap in our understanding of the association between discrimination and health outcomes among Sikh AIs. Specifically, the study examined the relationship between discrimination and mental and physical health outcomes in adult Sikh AIs who lived in the Metropolitan New York City (NYC) area. Given that Sikh AIs are likely to present with outward markers of ethnic minority status, we hypothesized that when accounting for demographic, social support, and acculturation-related covariates (Gee, 2002) discrimination would be related to a wide range of health outcomes among Sikh AIs. We hypothesized that (1) Discrimination would be positively associated with poorer self-reported (a) physical and (b) mental health; and (2) Discrimination would be positively associated with markers of cardiovascular disease, including higher BMI, higher waist-to-hip ratio, and increased odds of diastolic and systolic hypertension.

Methods

The study drew upon the principles of community based participatory research (CBPR) to leverage an ongoing community-academic collaboration between the New York University (NYU) Prevention Research Center (NYU PRC) and United Sikhs (US), a United Nations affiliated, not-for-profit, international community of men and women who practice the Sikh faith. The CBPR approach engages communities in designing research plans, recognizes communities' unique strengths, and fosters resource sharing between academic and community partners (Minkler & Wallerstein, 2008). The CBPR approach influenced this study as the lead author built significant relationships with Sikh community members, identified discrimination as a significant problem for Sikh AIs, incorporated community feedback in the study survey, and collected data in Sikh places of worship and community gatherings. In turn, the author was able to provide health screening and survey development resources at the community's request.

Setting, Sampling Frame, and Recruitment

Among the more than 190,000 AIs living in New York City (U.S. Census Bureau, 2010), there are an estimated 50,000 – 60,000 Sikh AIs living in the Richmond Hill, Queens area, the majority of whom speak either Punjabi or English. The sample for the current study was recruited at two main Sikh gurdwaras (places of worship and community gathering) in Queens, where thousands of Sikhs attend services and/or community events. The inclusion criteria for the study were: English or Punjabi speaking AIs between the ages of 21–70 who lived in New York City. The community-academic partnership between the NYU PRC and US greatly facilitated access to this vulnerable population, and provided the participants for the current study. A total of eight recruitment and data collection events were conducted. The first author and English- and Punjabi-speaking research assistants recruited participants. A $10 incentive in the form of cash was given to those who completed the study. IRB approval was obtained from NYU.

Survey data

The 69 question survey included demographic and social variables, acculturation, physical and mental health (SF-36), social support (family and peer support), and discrimination questions (Williams, Yu, Jackson, & Anderson, 1997). The Audio Computer Assisted Self-Interview (ACASI) method was utilized as many participants had low literacy and spoke only Punjabi. Participants completed a 30-minute ACASI survey in their chosen language, English or Punjabi. The survey was translated using the committee approach as outlined by Brislin (1970). A US female community leader associated with the NYU PRC projects and two male members of the US community pilot tested the survey.

Measures—Cardiovascular disease and chronic illnesses are linked with chronic stress exposure and ethnic minority status (Williams et al., 1997). Thus, elevated BMI, higher waist-to-hip ratio, and hypertension were selected because they may be related to discrimination-related stress (Gee, G.C., Ro, A., Gavin, A., & Takeuchi, D.T., 2008; Lewis, T.T., Williams, D.R., Tamene, M., & Clark, C.R., 2014). To identify how exposure to discrimination may have manifested through several stress-related pathways, we collected

direct, physiological data as well as self-reported health measures associated with chronic disease.

Physiological and self-reported measures

A BMI greater than 23 was considered overweight (Zheng et al., 2011). High blood pressure was classified as diastolic ≥ 90mmHg; systolic ≥ 130mmHg. Cutoff points for waist-to hip ratio measurements were a waist divided by hip ratio above .90 cm for men and above .80 cm for women. A number of control variables were collected including (1) demographics: age, gender, employment status, number of years living in the United States, health insurance status, income, and education, (2) acculturation-related factors: languages spoken, country of birth, and (3) social support factors: family/friend support, marital status. Self-reported health outcomes were measured with the SF-36 which consists of a 14 item Mental Component Score (MCS) and a 21 item Physical Component Score (PCS) (Ware et al., 2007). The four subscales of the MCS (vitality, social functioning, role-emotional, indicators of depression and anxiety) and PCS (physical functioning, role-physical, bodily pain, general health) are combined to reflect composite, separate scores for mental and physical health. The MCS and PCS were analyzed as two separate dependent variables with 0 representing the worst health and 100 being the best health possible in both scales. The independent variable, self-reported discrimination was measured using the Williams et al. (1997) “Everyday discrimination” scale. The EDS is a widely used, reliable, and valid 9-item scale evoking frequency responses on perceived unfair treatment which include receiving poorer service at stores or being treated with less courtesy. Total scores ranged from 0-45 on a 5-point likert scale, with higher EDS scores reflecting more frequent experiences of discrimination. Attributing self-reported discrimination to a particular characteristic such as race or was not included in the EDS score. However, one follow-up question asked participants if they experienced discrimination because of race-related factors, gender, age, height/weight, income level, or English language competency.

Data Analyses—ACASI data were downloaded into a Microsoft® Excel file and then imported into SPSS version 21 for all analyses. All data were de-identified. Missing income data (missing for 22% of participants) were estimated using lack of health insurance, education, and employment as proxy measures, as these variables are related to income and have been used to estimate missing income in prior studies (Coker et al., 2002; Bella, Adaira, & Popkina, 2004). In addition, the author's extensive prior knowledge of the community guided the process of addressing missing data, in that it was well known that this Sikh AI community had overall lower income status (Tabachnick & Fidell, 2007). The SF-36 (Cronbach's alpha = .91), Everyday Discrimination Scale (Cronbach's alpha = .76), and social support scales (Cronbach's alpha = .68) demonstrated acceptable internal reliability.

Results

Descriptive statistics were run, normality assumptions were met, and bivariate correlations indicated the absence of multicollinearity. The following dependent variables were regressed on self-reported discrimination and control variables in four separate multiple linear

regression models: Mental Component Scores (MCS), Physical Component Scores (PCS), Body Mass Index, waist-to-hip ratio. Two logistic regression models were used to estimate the association of SRD with the odds of Systolic and Diastolic hypertension.

Demographics, Discrimination, and Bivariate Data

The average age of Sikh AI participants (N = 196) was 45 years old; slightly more men (n = 107) than women (n = 89) participated. Nearly all of the participants emigrated from another country to the US (n = 189). Most participants (87%) reported an annual income of 0 - $39,999/year which is below the $57,001 median household income in Queens, NYC (US Census Bureau, 2009–2013 5-Year American Community Survey). Almost one-third were unemployed (n = 60) and almost one-third (n = 56) did not have health insurance. Half of participants could understand and speak English well. Nearly all (96%) participants had moderate to high levels of social support as measured by frequency of engagement with family and friends. Although most participants reported discrimination, scores were typically low (M = 8.55 [SD = 7.13]; 0-45 point scale). Participants reported experiencing various types of discriminatory events (being the recipient of racial slurs, people acting afraid of them) on average, less than once a year. More than one-third (n = 64) of participants said they experienced discrimination because of race-related factors. Of note, male participants scored significantly higher (M = 9.79, SD = 7.34) on the EDS than female participants (M = 7.06, SD = 6.60), t (194) = 2.711, p = .01. The 132 participants who wore a turban/scarf in public reported higher levels of SRD on the EDS (M = 9.27, SD = 7.43) compared to the 64 participants who did not wear a turban/scarf in public (M = 7.05, SD = 6.27), t (194) = −2.07, p = .04. Bivariate relationships were modest; however, SRD had a significant negative correlation with the MCS and no significant correlations with physiological measurements or the overall PCS score.

Multivariate Analyses

In addition to SRD, models included standard demographic, acculturation, and social support control variables that were deemed confounders in previous discrimination and health studies among Asian Americans (Gee, 2002; Paradies, 2006). We chose to examine these control variables in the following four sequential blocks: demographics, acculturation-related factors, social support factors, and in the fourth and final block SRD was included. The goal was to avoid data-driven specification or over-simplification of the models.

Self-reported Discrimination and Self-Reported Measures of Health—In the multiple linear regression of the SF-36 MCS on SRD, SRD was a robust predictor of poorer mental health, B = −.53, p < .001, while controlling for demographics, acculturation-related factors, and social support factors. For every one unit increase on the Everyday Discrimination Score (EDS), SF-36 Mental Health Composite Scores decreased by .53 on the MCS. The R^2 suggests 35% of the variance in SF-36 Mental Composite Scores was explained by the demographic, SRD, acculturation-related, and social support variables included in this model. By itself, SRD increased the squared multiple correlation by 13% (Table 1). In the multiple linear regression of the SF-36 PCS, SRD was a significant predictor of poorer physical health, B = −.16, p = .04, while controlling for demographics, acculturation-related factors, and social support factors. For every one unit increase on the

Everyday Discrimination Score (EDS), the SF-36 PCS scores decreased by .16. The R^2 indicated the model accounted for 27% of the variance in PCS scores. By itself, SRD increased the squared multiple correlation by 2% (Table 1).

Self-reported Discrimination and Physiological Measures of Health—In multiple regression analyses, no significant associations were found between self-reported discrimination and body mass index (F[16, 179] = 2.11, p =.01) or waist to hip ratio (F[16, 197] = 7.10, p = .01). The association between SRD and the increased odds of (1) systolic hypertension (χ^2[16, N = 196] = 61.36, p < .001; AOR = .98; p = .41) or (2) diastolic hypertension (χ^2[16, N = 196] = 33.0, p = .01; AOR = 1.00, p = .92) were not statistically significant.

Conclusions

As with previous studies among Black and Latino populations (Brondolo et al., 2011; Paradies, 2006), relationships between SRD and self-reported health were statistically significant in this study with SRD explaining more of the variance in self-reported mental health (13%) than physical health (2%). Null findings between SRD and higher body mass index (BMI), higher waist-to-hip ratio (WHR), and increased odds of systolic and diastolic hypertension, also aligned with previous studies (Brondolo et al., 2011; Gee et al., 2009). However, since direct, physiological health outcomes have been found to be associated with discrimination in some studies with African Americans, it was expected that SRD would be associated with physiological data (BMI, WHR, and hypertension) among Sikh AIs. This null finding was unexpected given the Sikh AIs have experienced in addition to phenotypic susceptibility (e.g., displaying identifiable markers of cultural/religious ethnic minority status such as turbans and head scarves). Although turban/scarf wearing or other cultural markers were not evaluated as a potential source of discrimination, those who wore turbans/scarves in public reported higher levels of discrimination compared to those who did not wear turbans/scarves in public. Notably, Sikh AI males may have reported higher levels of discrimination in this study as they are more likely to wear turbans in public than Sikh AI women are to wear head scarves in public.

“Threshold theory” as potential explanation of findings

The “threshold theory” suggested by Gee (2002) and Williams, Neighbors, and Jackson (2003) may provide insights into why discrimination was linked to self-reported mental and physical health, but not physiological health, in our study. Although it has not been empirically tested, “Threshold theory” postulates that moderately elevated reports of discrimination may first impact mental health, and as discrimination reports increase in frequency and intensity, self-reported physical and ultimately physiological health outcomes may manifest. These studies and others have shown that low scores on discrimination scales have been primarily linked to mental health outcomes whereas higher scores on discrimination scales have been more frequently associated with physical/physiological health outcomes (Brondolo et al., 2011; Gee, 2002; Gee et al., 2009; Paradies, 2006). We expected that discrimination reports would be higher in the study given that many Sikh AIs display outward markers of their minority status and have experienced a significant history

of discriminatory events in the US. Therefore, because SRD was unexpectedly low in our study (reported approximately one time per year), perhaps the higher thresholds at which SRD may impact physiological health were not reached.

To our knowledge, this is the first study to have explored discrimination and **several** health outcomes specific to a South Asian subgroup. Low discrimination reports may have been related to study participants living in an area densely populated with Sikh AIs and perhaps therefore isolated from some level of societal discrimination (Frisbie, Cho, & Hummer, 2001). Lastly, participants were relatively recent immigrants, and although years in the U.S. did not influence health outcomes in the study, it has been previously shown that perceptions of discrimination increase the longer Asian American immigrants live in the US (Yip, Gee, & Takeuchi, 2008). Although findings in this study mirror those of other studies with ethnic minority groups, it is important to consider if cultural or religious aspects specific to Asian Americans and subgroups may influence (1) levels of reported discrimination and (2) the intensity or type of associated health outcomes with SRD.

Limitations and strengths

The study is limited by the cross-sectional design and potential for reverse causation. In addition, convenience sampling limits generalizability to all Sikh Asian Indians living in a densely populated ethnic enclave. Comparative analyses between Sikh AIs living inside and those living outside Sikh ethnic enclaves would enhance an understanding of the phenomenon. In terms of strengths, the study utilized a CBPR approach in which researchers collaborated with Sikh AIs and the first author presented study findings in small group sessions at the Sikh AI community centers where data collection took place. This study utilized valid, reliable, multi-item, and direct physiological measures and translated the survey into Punjabi using standard and accepted methods.

In sum, this study provides evidence for a less commonly investigated stressor and explanation of poor health among Sikh Asian Indians in the US. This study may encourage collaboration between researchers, clinicians, and South Asian American community organizations to develop strategies to mitigate experiences of discrimination for Sikh AIs. Taken together, these results along with the growing body of literature on discrimination and poor health among several other ethnic minority groups, provide support for Krieger's (1999, p. 295) claim that “inequality hurts.”

Acknowledgments

This research was primarily supported by the National Institute of Nursing Research Ruth L. Kirschstein National Research Service Award for Individual Predoctoral Fellows In Nursing Research (1F31NR013830-01A1). This work was partially supported by the following research grants: P60MD000538 from the National Institutes of Health, National Institute for Minority Health and Health Disparities, UL1 TR000038 from the National Center for Advancing Translational Sciences, National Institutes of Health, 1U48DP001904-01 from the Centers for Disease Control and Prevention, and The National, Heart, Lung, and Blood Institute of the National Institutes of Health under Award Number T32HL069771. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institute of Health.

References

Bella AC, Adaira LS, Popkina BM. Understanding the role of mediating risk factors and proxy effects in the association between socio-economic status and untreated hypertension. Social Science & Medicine. 2004; 59:275–283. [PubMed: 15110419]

Brislin RW. Back-translation for cross-cultural research. Journal of Cross-Cultural Psychology. 1970; 1:185–216.

Brondolo E, Rieppi R, Kelly KP, Gerinet W. Perceived racism and blood pressure: a review of the literature and conceptual and methodological critique. Annals of Behavioral Medicine. 2003; 25:55–65. [PubMed: 12581937]

Brondolo E, Hausmann LRM, Jhalani J, Pencille M, Atencio-Bacayon J, Kumar A, Schwartz J. Dimensions of perceived racism and self-reported health: Examination of racial/ethnic differences and potential mediators. Annals of Behavioral Medicine. 2011; 42:14–28. [PubMed: 21374099]

California Health Interview Survey. UCLA Center for Health Policy Research; Los Angeles, CA: 2003.

Coker AL, Davis KE, Arias I, Desai S, Sanderson M, Brandt HM, Smith PH. Physical and mental health effects of intimate partner violence for men and women. American Journal of Preventive Medicine. 2002; 23:260–268. [PubMed: 12406480]

Frisbie W,P, Cho Y, Hummer RA. Immigration and the health of Asian and Pacific Islander adults in the United States. American Journal of Epidemiology. 2001; 153:372–380. [PubMed: 11207155]

Gee GC. A multilevel analysis of the relationship between institutional and individual racial discrimination and health status. American Journal of Public Health. 2002; 92:615–623. [PubMed: 11919062]

Gee GC, Ro A, Gavin A, Takeuchi DT. Disentangling the effects of racial and weight discrimination on body mass index and obesity among Asian Americans. American Journal of Public Health. 2008; 98:493–500. [PubMed: 18235065]

Gee GC, Ro A, Shariff-Marco S, Chae D. Racial discrimination and health among Asian Americans: Evidence, assessment, and directions for future research. Epidemiological Review. 2009; 31:130–151.

Krieger N, Sidney S. Racial discrimination and blood pressure: The CARDIA study of young black and white adults. American Journal of Public Health. 1996; 86:1370–1378. [PubMed: 8876504]

Krieger N. Embodying inequality: A review of concepts measures, and methods for studying health consequences of discrimination. International Journal of Health Services. 1999; 29:295–352. [PubMed: 10379455]

Lewis TT, Williams DR, Tamene M, Clark CR. Self-reported experiences of discrimination and cardiovascular disease. Current Cardiovascular Risk Report. 2014; 8:1–15.

Minkler, M.; Wallerstein, N. Community-based participatory research for health from process to outcomes. Jossey-Bass; San Francisco, CA: 2008.

Paradies Y. A systematic review of empirical research on self-reported racism and health. International Journal of Epidemiology. 2006; 35:888–901. [PubMed: 16585055]

The Sikh Coalition. Fact Sheet on Post-9/11 Discrimination and Violence against Sikh Americans. 2014. Retrieved from http://www.kaurista.com/wp-content/uploads/2012/08/Fact-Sheet-on-Hate-Against-Sikhs-in-America-Post-9-11.pdf

U.S. Census Bureau. Population groups summary file 1. 2010. Retrieved from http://2010.census.gov/news/press-kits/summary-file-1.html

Tabachnick, BG.; Fidell, LS. Using Multivariate Statistics. 5th ed.. Allyn and Bacon; New York: 2007.

U.S. Census Bureau. 5-Year American Community Survey. 2009–2013. Retrieved from: http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk

Ware, JE., Jr.; Kosinski, M.; Bjorner, JB.; Turner-Bowker, DM.; Gandek, B.; Maruish, ME. User's manual for the SF-36v2™ Health Survey. 2nd ed.. QualityMetric Incorporated; Lincoln, RI: 2007.

Williams DR, Yu Y, Jackson JS, Anderson NB. Racial differences in physical and mental health: Socio-economic status, stress, and discrimination. Journal of Health Psychology. 1997; 2:335–351. [PubMed: 22013026]

Williams DR, Neighbors HW, Jackson JS. Racial/ethnic discrimination and health: Findings from community studies. American Journal of Public Health. 2003; 93:200–208. [PubMed: 12554570]

Yip T, Gee GC, Takeuchi DT. Racial discrimination and psychological distress: The impact of ethnic identity and age among immigrant and United States-born Asian adults. Developmental Psychology. 2008; 44:787–800. [PubMed: 18473644]

Zheng W, et al. Association between body-mass index and risk of death in more than 1 million Asians. The New England Journal of Medicine. 2011; 364:1533–4406. [PubMed: 21506742]

Table 1

Multiple Regression of SRD and Mental and Physical Health

	SF-36 Mental Component		SF-36 Physical Component	
Predictor Variables	**B SE**	**b**	**B SE**	**b**
Survey time of day	.03 (0.15)	.01	.17 (0.13)	.08
Age	.10 (0.05)	.16*	−.07 (0.04)	−.13
Female	−.41 (1.25)	−.02	−.52 (1.10)	−.03
BP medication	−3.68 (1.59)	−.16*	−2.50 (1.40)	−.13
Education	.97 (1.30)	.05	.04 (1.15)	.00
Moderate income	−3.26 (1.36)	−.15*	−.70 (1.20)	−.04
High income	−6.49 (1.97)	−.23**	1.04 (1.73)	.05
Employed	.301 (1.17)	.02	.43 (1.03)	.03
Insurance	−.52 (1.40)	−.03	.21 (1.24)	.01
Years lived in US	.00 (0.07)	.00	−.04 (0.06)	−.05
Turban in public	.60 (1.56)	.03	.35 (1.37)	.02
English language in home	−1.62 (2.22)	−.06	5.78 (1.96)	.23**
English competency	2.97 (1.13)	.21**	1.59 (0.99)	.13
Married/living with partner	1.65 (1.43)	.08	−1.16 (1.26)	−.07
Social Support	2.31 (0.70)	.22***	.97 (0.62)	.11
SRD	−.53 (0.09)	−.40***	−.16 (0.08)	−.15*
Model R^2	.35		.27	
Adjusted Model R^2	.30		.21	
Increment in R^2 due to adding SRD	.13		.02	
F-test for increment in R^2 due to adding SRD	F(1,177) = 37.68***		F(1,177) = 4.44*	

Note: N = 194.

* $p < .05$.

** $p < 0.01$.

*** $p < .001$